

CLAIM AMENDMENTS

1. (Cancelled)

2. (Currently Amended) A method of manufacturing a semiconductor device comprising ~~the steps of:~~

laminating an insulating oxide film and a first poly-silicon film sequentially, in order, on a silicon ~~semiconductor~~ layer of a first conductivity type;

forming an opening by selectively etching said insulating oxide film and said first poly-silicon film and exposing a part of said silicon ~~semiconductor~~ layer of first conductivity type ~~through said~~ in the opening;

forming an impurity ~~diffused layer~~ doped region of a second conductivity type by implanting ~~an~~ a dopant impurity of producing the second conductivity type into the ~~exposed portion~~ part of said silicon ~~semiconductor~~ layer of first conductivity type exposed in the opening;

removing a natural oxidation film from said impurity ~~diffused layer~~ of second conductivity type doped region and said first poly-silicon film ~~by applying HF (with hydrofluoric acid) treatment;~~

forming a thin uniform oxide film on ~~the surface of~~ said impurity ~~diffused layer~~ of second conductivity type doped region in the opening and on ~~the surface of~~ said first poly-silicon film from which the natural oxidation film has been removed;

forming a second poly-silicon film ~~on the entire surface of~~ covering said first poly-silicon film, including in the substrate opening, and implanting the dopant impurity of producing the second conductivity type in said second poly-silicon film;

activating ~~said the~~ impurity of producing the second conductivity type implanted in said second poly-silicon film and diffusing ~~said the dopant~~ impurity of producing the second conductivity type into said first poly-silicon film through said thin uniform oxide film; and

~~forming uniformly~~ removing a removed portion in said thin uniform oxide film by applying a high temperature annealing treatment for a short time and at a temperature from about 950°C to 1150°C for a time period of at least ten seconds and up to about three minutes, thereby forming a thin uniform oxide film serving as contact ~~having the uniformly formed including the~~ removed portion.

3. (Currently Amended) The method of manufacturing a semiconductor device according to claim 2, ~~wherein~~ including forming said thin uniform thickness oxide film ~~is formed by H2O2 (treating with hydrogen peroxide) treatment.~~

In re Appln. of Masaaki IKEGAMI
Application No. Unassigned

4. (Currently Amended) The method of manufacturing a semiconductor device according to claim 2, wherein said thin uniform oxide film is about 0.5nm to 10nm ~~in thickness~~ thick.

5. (Cancelled)